How do firms respond to political uncertainty? Evidence from Listed Companies on the Stock Exchange of Thailand

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Paper presented in Macro-Finance Research Workshop

9 August 2023

Political uncertainty: Adapting to unknown

- Political uncertainty refers to a situation in which the political environment is marked by a lack of predictability or clarity.
- Political uncertainty can arise from changes in government leadership, policy shifts, electoral outcomes, trade disputes, international conflicts, and other geopolitical tensions.
- High political uncertainty may
 - make individual feel unsure about their job security, future economic prospects, and overall well-being, impacting their spending and saving behavior.
 - induce investors to become more risk-averse and hesitant to invest in uncertain environments, leading to fluctuations in financial markets.
 - lead to delayed corporate investments, reduced consumer confidence, and cautious decision-making, affecting growth and profitability.
 - challenge the government in formulating stable and consistent policies. This can hinder economic growth and investment in the country.

Measuring political uncertainty can be challenging

- Sentiment analysis/ Expert opinions: Conduct surveys or use sentiment analysis tools to capture public perceptions, including opinions of citizens, businesses, and investors or seek insights from political analysts, economists, and experts who closely monitor political developments.
- Event Studies: Analyze how specific political events impact financial markets, business decisions, or economic indicators.
- **Government Risk Assessments:** Refer to risk assessments provided by institutions that rank countries based on their political risk levels.
- Economics or market indicators: Look for changes in economic indicators, such as GDP growth, investment levels, and consumer confidence during periods of political uncertainty or examine financial market volatility indices, such as the VIX (Volatility Index), which reflect investor expectations and uncertainty levels.
- Media analysis/ Policy uncertainty indices: Invented by Baker, Bloom, and Davis (2016) based on media mentions of uncertainty, disagreement among economic forecasters, and specific policy-related factors.

Thai's Political uncertainty

- Thailand has a complex political landscape characterized by frequent changes in government, military interventions, protests and civil unrest, constitutional reforms, and disputes between different political factions.
- Luangaram and Sethapramote (2018) developed a Political Uncertainty Index (PUI) by searching specific keywords covered in daily Thai-language newspapers. It was assumed that greater media coverage of certain issues would indicate a higher degree of conflict/disagreement being involved.
- An overall political uncertainty index (PUI) was constructed with 5 news about
 - political protest,
 - martial law or states of emergency,
 - military coup,
 - general election, and
 - constitutional reform

- OUTSIDE the parliamentary system
- INSIDE the parliamentary system



Limited Understanding of Firm Responses to Political Uncertainty

- Numerous scholarly investigations have delved into the subject of political uncertainty at the macro-level such as
 - foreign direct investment (e.g., Julio & Yook, 2016; Luangaram & Sethapramote, 2020),
 - real output (e.g., Alesina & Sachs, 1988),
 - trade flows (e.g., Apaitan et al., 2022; Goswami & Panthamit, 2020)
 - private investment (e.g., Azzimonti, 2018)
 - consumption (e.g., Kimbell, 1990)
 - variance of economic growth (e.g., Sethapramote, 2022)
- However, despite the considerable attention devoted to this macro-level phenomenon, the body of empirical research exploring its direct impact on individual firms remains relatively sparse.
 - Gulen and Ion (2016) provide a comprehensive study of political uncertainty's impact on firms' investment in the U.S. market using the Economic Policy Uncertainty (EPU) index (Baker, et al.) as a proxy of political uncertainty
 - In the Thai framework, political uncertainty is mostly assessed through the application of an event study methodology.

Firms may Response differently to Political Uncertainty

• Investment decisions:

- Real option theory (Bernanke, 1983): During times of heightened uncertainty, the value of waiting options increases, meaning that firms may postpone major investments or expansions until there is more clarity about the political environment. (Gulen & Ion, 2016)
- However, some firms may be reluctant to wait since it is too costly or unfeasible especially when they are in very competitive industries.

• Financing decisions:

- Firms tend to hold more cash in periods with high political uncertainty.
- The cost of debt financing is increasing during high uncertainty (Greenwald & Stiglitz, 1990); therefore, firms tend to lower new debt financing.
- Political uncertainty may increase the required rate of return on equity (Pastor & Veronesi, 2011). However, due to limited liability and risk-shifting issues (Jensen & Meckling, 1976), an increase in uncertainty may, in fact, increase the value of equity. Therefore, there is an unclear impact on equity issuance.

Firms may Response differently to Political Uncertainty

• Operating decisions:

- During times of high uncertainty, firms may be under pressure to meet or exceed market expectations to maintain investor confidence.
- Firms may need to adjust their pricing strategies and cost management practices to adapt to changing economic conditions and government policies.
- Firms may become more cautious about adding new employees or expanding their workforce during times of instability.
- Firms might reconsider their research and development (R&D) activities and innovation strategies in uncertain political climates.
- Firms tend to tie more working capital to their operations during high uncertainty. (Dbouk et al., 2020)

Data and Methodology

- Quarterly data from January 2002 to December 2021, 80 quarters in total.
- Firms from finance industry, REIT, infrastructure fund, property fund are excluded.
- Firms must have non-missing observations for all accounting variables for at least 20 quarters.
- 446 unique firms (~ 65% of total) unbalance panel.

Baseline equation:



• Winsorized all accounting variables at the 1st and 99th percentiles in order to minimize the outliers.

Classic investment model

	(t+1)	CAPEX/TA	CAPEX/TA	CAPEX/TA
Tobin's Q		$3.98 \times 10^{-3} * * *$		3.87 x 10 ⁻³ ***
		(14.985)		(14.511)
Cash flows/Asset	ts		$4.53 \times 10^{-2} * * *$	3.65 x 10 ⁻² ***
			(10.241)	(7.425)
R-squared		0.198	0.202	0.195

Investment opportunity (Tobin's Q) and financial constraint have statistical explanatory power.

When PUI is high, firms' investments decline

	CAPEX/TA					
	t + 1	t + 2	t + 3	t + 4		
Overall PUI	-1.17 x 10 ^{-3***}	-1.02 x 10 ⁻³ ***	-1.40 x 10 ⁻³ ***	-4.09 x 10 ⁻⁴		
	(-3.354)	(-2.987)	(-4.232)	(-1.357)		
Cash flow/Assets	3.92 x 10 ⁻² ***	3.40 x 10 ⁻² ***	2.51 x 10 ⁻² ***	2.07 x 10 ⁻² ***		
	(8.079)	(6.712)	(5.098)	(4.474)		
Sales growth	-5.66 x 10 ⁻⁵	2.49 x 10 ⁻⁴	4.30 x 10 ⁻⁴	3.72 x 10 ⁻⁴		
	(-0.202)	(0.892)	(1.623)	(1.525)		
Tobin's Q	3.66 x 10 ⁻³ ***	3.35 x 10 ⁻³ ***	3.04 x 10 ⁻³ ***	2.37 x 10 ⁻³ ***		
	(13.947)	(13.047)	(11.832)	(9.754)		
GDP growth	1.57 x 10 ⁻³	1.20 x 10 ⁻² ***	1.08 x 10 ⁻² ***	8.77 x 10 ⁻³ **		
	(0.436)	(3.344)	(2.617)	(2.300)		
Covid	-2.99 x 10 ⁻³ ***	-1.74 x 10 ⁻³ ***	-1.22 x 10 ⁻³ **	-1.08 x 10 ⁻³ **		
	(-7.140)	(-3.923)	(-2.250)	(-2.005)		

#GFC & Flood are not significant.

INSIDE PUI has stronger impact than OUTSIDE PUI

	OUTSIDE Parliament (1, 2, 3) on CAPEX/TA				INSIDE Parliament (4, 5) on CAPEX/TA			
	t + 1	t + 2	t + 3	t + 4	t + 1	t + 2	t + 3	t + 4
PUI	1.67 x 10 ⁻⁴	-1.08 x 10 ⁻⁴	-4.70 x 10 ⁻⁴ **	8.58 x 10 ⁻⁵	-4.09 x 10 ⁻³ ***	-2.60 x 10 ⁻³ ***	-2.65 x 10 ^{-3***}	-1.64 x 10 ^{-3***}
	(0.713)	(-0.468)	(-2.105)	(0.422)	(-10.634)	(-6.917)	(-7.210)	(-4.902)
Cash flow/Assets	3.87 x 10 ⁻² ***	3.40 x 10 ⁻² ***	2.51 x 10 ⁻² ***	2.06 x 10 ⁻² ***	3.86 x 10 ⁻² ***	3.26 x 10 ⁻² ***	2.42 x 10 ⁻² ***	2.00 x 10 ⁻² ***
	(7.954)	(6.696)	(5.102)	(4.431)	(7.954)	(6.450)	(4.927)	(4.309)
Sales growth	-8.38 x 10 ⁻⁵	2.31 x 10 ⁻⁴	4.19 x 10 ⁻⁴	3.53 x 10 ⁻⁴	-1.08 x 10 ⁻⁴	2.11 x 10 ⁻⁴	3.63 x 10 ⁻⁴	3.61 x 10 ⁻⁴
	(0.298)	(0.828)	(1.586)	(1.452)	(-0.390)	(0.765)	(1.387)	(1.486)
Tobin's Q	3.68 x 10 ⁻³ ***	3.35 x 10 ⁻³ ***	3.02 x 10 ⁻³ ***	2.37 x 10 ⁻³ ***	3.76 x 10 ⁻³ ***	3.42 x 10 ⁻³ ***	3.11 x 10 ⁻³ ***	2.44 x 10 ⁻³ ***
	(14.020)	(13.028)	(11.756)	(9.750)	(14.317)	(13.366)	(12.119)	(10.032)
GDP growth	2.57 x 10 ⁻³	1.28 x 10 ⁻² ***	1.23 x 10 ⁻² ***	9.36 x 10 ⁻³ **	-2.82 x 10 ⁻³	8.85 x 10 ⁻³ **	5.72 x 10 ⁻³	4.64 x 10 ⁻³
	(0.713)	(3.585)	(2.986)	(2.462)	(-0.773)	(2.451)	(1.351)	(1.178)
Dummy Covid	-3.30 x 10 ⁻³ ***	-1.90 x 10 ⁻³ ***	-1.25 x 10 ⁻³ **	-1.16 x 10 ⁻³ **	-3.11 x 10 ⁻³ ***	-1.90 x 10 ⁻³ ***	-1.78 x 10 ⁻³ ***	-1.47 x 10 ^{-3***}
	(-7.756)	(-4.241)	(-2.277)	(-2.138)	(-7.534)	(-4.344)	(-3.284)	(-2.712)

#We also include dummy variable for period of Global Financial Crisis (2008q4 to 2009q1) and Flood period (2011q4). However, Impacts of the dummies (GFC and Flood) are inconclusive.

Coup, Election, and Reform have an immediate and adverse impact on investment

	CAPEX/TA (t + 1)					
	Protest	Martial law	Coup	Election	Reform	
PUI	1.27 x 10 ⁻⁴	1.34 x 10 ⁻⁴	-1.75 x 10 ⁻³ ***	-2.42 x 10 ⁻³ ***	-2.56 x 10 ⁻³ ***	
	(0.677)	(1.135)	(-7.916)	(-5.937)	(-10.735)	
Cash flow/Assets	3.88 x 10 ⁻² ***	3.88 x 10 ⁻² ***	3.96 x 10 ⁻² ***	3.89 x 10 ⁻² ***	3.86 x 10 ⁻² ***	
	(7.968)	(7.960)	(8.190)	(8.024)	(7.949)	
Sales growth	-9.70 x 10 ⁻⁵	-8.81 x 10 ⁻⁵	-1.29 x 10 ⁻⁴	6.86 x 10 ⁻⁶	-2.49 x 10 ⁻⁴	
	(-0.347)	(-0.312)	(-0.464)	(0.024)	(-0.910)	
Tobin's Q	3.69 x 10 ⁻³ ***	3.65 x 10 ⁻³ ***	3.62 x 10 ⁻³ ***	3.59 x 10 ⁻³ ***	3.81 x 10 ⁻³ ***	
	(14.062)	(13.924)	(13.778)	(13.697)	(14.504)	
GDP growth	2.62 x 10 ⁻³	2.67 x 10 ⁻³	4.41 x 10 ⁻³	6.80 x 10 ⁻⁴	-2.83 x 10 ⁻³	
	(0.727)	(0.740)	(1.225)	(0.189)	(-0.774)	
Covid	-3.22 x 10 ⁻³ ***	-3.38 x 10 ⁻³ ***	-2.83 x 10 ⁻³ ***	-3.56 x 10 ⁻³ ***	-2.84 x 10 ⁻³ ***	
	(-7.780)	(-7.784)	(-6.810)	(-8.546)	(-6.846)	
GFC	-1.91 x 10 ⁻³ **	-1.84 x 10 ⁻³ **	-1.18 x 10 ⁻³	-1.55 x 10 ⁻³ *	-1.83 x 10 ⁻³ **	
	(-2.371)	(-2.312)	(-1.610)	(-1.950)	(-2.291)	

#Flood is not significant.

The investments of non-concession firms were heavily impacted

	CAPEX/TA (t+1)					
	Overall	Protest	Martial law	Coup	Election	Reform
PUI*Concession	1.20 x 10 ⁻³	-8.47 x 10 ⁻⁴	-1.09 x 10 ⁻⁴	4.71 x 10 ⁻⁴	6.97 x 10 ⁻⁴	2.35 x 10 ⁻³ **
	(0.827)	(-1.040)	(-0.224)	(0.504)	(0.411)	(2.420)
PUI*Non-concession	-1.33 x 10 ⁻³ ***	1.83 x 10 ⁻⁴	1.49 x 10 ⁻⁴	-1.90 x 10 ⁻³ ***	-2.62 x 10 ⁻³ ***	-2.88 x 10 ⁻³ ***
	(-3.727)	(0.953)	(1.228)	(-8.369)	(-6.272)	(-11.716)
Cash flow/Assets	3.92 x 10 ⁻² ***	3.87 x 10 ⁻² ***	3.87 x 10 ⁻² ***	3.98 x 10 ⁻² ***	3.88 x 10 ⁻² ***	3.91 x 10 ⁻² ***
	(8.073)	(7.950)	(7.945)	(8.226)	(8.006)	(8.051)
Sales growth	-5.91 x 10 ⁻⁵	-1.03 x 10 ⁻⁴	-9.15 x 10 ⁻⁵	-1.37 x 10 ⁻⁴	6.77 x 10 ⁻⁶	-2.72 x 10 ⁻⁴
	(-0.211)	(-0.369)	(-0.324)	(-0.489)	(0.024)	(-0.992)
Tobin's Q	3.68 x 10 ⁻³ ***	3.68 x 10 ⁻³ ***	3.65 x 10 ⁻³ ***	3.62 x 10 ⁻³ ***	3.60 x 10 ⁻³ ***	3.84 x 10 ⁻³ ***
	(14.228)	(14.015)	(13.922)	(13.812)	(13.719)	(14.621)
GDP growth	1.62 x 10 ⁻³	2.76 x 10 ⁻³	2.68 x 10 ⁻³	4.43 x 10 ⁻³	7.33 x 10 ⁻⁴	-3.00 x 10 ⁻³
	(0.450)	(0.765)	(0.744)	(1.231)	(0.203)	(-0.819)
Covid	-2.99 x 10 ⁻³ ***	-3.22 x 10 ⁻³ ***	-3.37 x 10 ⁻³ ***	-2.84 x 10 ⁻³ ***	-3.56 x 10 ⁻³ ***	-2.84 x 10 ⁻³ ***
	(-7.128)	(-7.779)	(-7.780)	(-6.817)	(-8.543)	(-6.843)
GFC	-1.63 x 10 ⁻³ **	-1.92 x 10 ⁻³ **	-1.84 x 10 ⁻³ **	-1.28 x 10 ⁻³	-1.54 x 10 ⁻³ *	-1.82 x 10 ⁻³ **
	(-2.049)	(-2.382)	(-2.314)	(-1.603)	(-1.940)	(-2.281)

#Flood is not significant.

Policy-sensitive sectors' investments are more severely impacted

	<u>Overall</u>	<u>Protest</u>	<u>Martial Law</u>	<u>Coup</u>	Election	<u>Reform</u>
Negative	Cons, Agri, Food, Auto, ICT, Media, IMM, Petro	Argi, Energy, <mark>Media</mark>	Cons, Food, Auto, ICT, Media, IMM, Home	Cons, Food, Auto, ICT, Media, IMM, Petro, Home	Food, Auto, ICT, Media, IMM, Home	Cons, Food, Auto, Prop, ICT, Trans, IMM, Petro, PKG, Fashion, Home, Health
Positive	Prop, Steel, Etron	Food, Steel, PKG, Etron	Person, Etron	Etron	Person, Etron	Etron
None	Conmat, Energy, Tour, Trans, PKG, Paper, Fashion, Home, Person, Comm, Health, Prof	Cons, Conmat, Auto, Prop, ICT, Tour, Trans, IMM, Petro, Paper, Fashion, Home, Person, Comm, Health, Prof	Conmat, Agri, Prop, Energy, Tour, Trans, Petro, Steel, PKG, Paper, Fashion, Comm, Health, Prof	Conmat, Agri, Prop, Energy, Tour, Trans, Steel, PKG, Paper, Fashion, Person, Comm, Health, Prof	Cons, Conmat, Agri, Prop, Energy, Tour, Trans, Petro, Steel, PKG, Paper, Fashion, Comm, Health, Prof	Conmat, Agri, Energy, Media, Tour, Steel, Paper, Person, Comm, Prof

Firms may signal strong performance during some type of high uncertainty (Protest & Marital Law)

	ROA (t + 1)					
	Overall	Protest	Martial law	Coup	Election	Reform
PUI	2.41 x 10 ⁻²	6.03 x 10 ⁻² ***	4.30 x 10 ⁻² ***	-2.68 x 10 ⁻² **	-4.73 x 10 ⁻² **	-1.18 x 10 ⁻¹ ***
	(1.345)	(6.108)	(7.135)	(-2.331)	(-2.266)	(-9.808)
Cash flow/Assets	31.968 ***	31.886 ***	31.844 ***	31.930 ***	31.913 ***	31.725 ***
	(68.140)	(67.967)	(67.821)	(68.126)	(68.118)	(67.870)
Sales growth	0.481 ***	0.479 ***	0.477 ***	0.482 ***	0.483 ***	0.475 ***
	(29.468)	(19.292)	(29.246)	(29.487)	(29.547)	(29.010)
Tobin's Q	0.428 ***	0.429 ***	0.427 ***	0.430 ***	0.429 ***	0.444 ***
	(36.503)	(36.648)	(36.375)	(36.672)	(36.559)	(37.600)
GDP growth	0.296	0.242	0.302 *	0.292	0.239	0.111
	(1.624)	(1.325)	(1.660)	(1.604)	(1.303)	(0.604)

#COVID, GFC, and Flood have negative impacts.

Nonetheless, the operating profit experiences significant detriment

	OPM (t + 1)					
	Overall	Protest	Martial law	Coup	Election	Reform
PUI	-5.53 x 10 ⁻¹ ***	1.59 x 10 ⁻¹ ***	-3.01 x 10 ⁻²	-6.32 x 10 ⁻¹ ***	-9.02 x 10 ⁻¹ ***	-7.33 x 10 ⁻¹ ***
	(-4.987)	(2.678)	(-0.827)	(-7.624)	(-6.681)	(-7.866)
Cash flow/Assets	81.773 ***	81.588 ***	81.663 ***	82.347 ***	81.784 ***	81.812 ***
	(43.425)	(43.266)	(43.266)	(43.635)	(43.533)	(43.464)
Sales growth	5.014 ***	4.989 ***	4.997 ***	5.042 ***	5.040 ***	4.956 ***
	(36.764)	(36.549)	(36.636)	(36.697)	(36.889)	(36.220)
Tobin's Q	1.624 ***	1.590 ***	0.600 ***	1.626 ***	1.598 ***	1.658 ***
	(23.546)	(23.144)	(23.283)	(23.613)	(23.172)	(23.821)
GDP growth	-1.097	-1.207	-1.095	-0.405	-1.852 *	-1.578
	(-0.992)	(-1.091)	(-0.991)	(-0.366)	(-1.665)	(-1.421)

#COVID and GFC have negative impacts while Flood in inconclusive.

Tourism's performance has dropped, even though investment has not

	ROA	<u>OPM</u>
Negative	Tour, Paper, Fashion	Cons, Tour, IMM, Petro, Paper
Positive	Conmat, Agri, Food, Energy, ICT, Steel, PKG, Person, Health, Media, Prof	Agri, Food, Person
None	Cons, Auto, Prop, Trans, IMM, Petro, Home, Comm, Etron	Conmat, Auto, Prop, Energy, ICT, Steel, PKG, Fashion, Home, Comm, Health, Media, Prof, Etron

Conclusion ...

- Using 20 years data (2020 to 2021) from listed companies in SET, our empirical results show that political uncertainty is a crucial factor that significantly affect firms' investment decision
- However, the dimensions of political uncertainty is important, i.e. coup, election and reform are the essential aspect that affect not only firms' investment but also performance, i.e. Return on Assets (ROA), Operation Profit Margin (OPM)
- Difference sectors of firms can explain the variation in response of political uncertainty. The sector that related to government expenditure (i.e construction), policy decision (i.e ICT, Media, Food) and private investment (industrial material) are the sensitive sector.
- Tourism sector investment decisions are not affected by political uncertainty but their ROA and OPM are crucially link to political conflict.

More to explore ...

- Firms tend to tie more working capital to their operations during high uncertainty. (Dbouk et al., 2020)
- Firms may become more cautious about adding new employees or expanding their workforce during times of instability.
- Firms might reconsider their research and development (R&D) activities and innovation strategies in uncertain political climates.
- Firms tend to lower new debt financing